REMARKS

Claims 1-3, 5-8 and 10-36 are currently pending in the application. Claims 4 and 9 are cancelled herewith, claims 1, 18 and 12 are amended and claims 29-36 are new.

Claims 1-3, 6, 8, 10, 12 and 14-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wischmann in view of Wollenweber. (The lead sentence of item 3 of the office action did not mention claim 12, in error.)

Claims 7, 11, 13, 23 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wischmann in view of Wollenweber and further in view of Liu, et al.

Claims, 27 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wollenweber in view of Wischmann.

Claim 26 is allowed and claims 4, 5, 9 and 25 are objected to.

Applicants note that claims 4 and 9 are indicated as being patentable. Claims 1 and 8 have been amended to include the limitation of claim 4 and 9 respectively and claim 5 has been amended to change its dependency. Claim 4 has been cancelled. In view of the above changes the rejection of claims 1-3, 6 -8, 10 and 11 are moot.

Claim 12 has been amended so that the claim now requires:

(a) acquiring at least one image of said slice at an imaging position using a first imaging modality;
(b) acquiring another image of said slice at a different imaging position using a second imaging modality;
(c) determining the sag at at least one of said imaging positions from an image acquired at the other imaging position;
and
(d) aligning said acquired images based on the determined sag.

No combination of the prior art references teaches this set of limitations. In fact, none of the prior art references even hints at finding a sag at one imaging position based on a determined sag at another position and certainly there is no such teaching where the images are acquired by different modalities. While Wichmann does teach finding distortions in a number of image slices, these are contiguous slices and the corrections are found together rather than as claimed. This methodology is not adaptable to finding sag in systems in which the slices are acquired by different image modalities.

Thus, Wichmann is not applicable to systems such as that of Wollenweber.

·As to the remaining rejections, applicants respectfully traverse the rejections and submit that the claims are not *prima facie* obvious in view of the cited prior art.

The other rejected claims include independent claims 27 and 28.

Claim 27 includes the limitations of performing the following acts:

(a) the accumulation of data from a plurality of various measurements of sag in a plurality of various situations, and

(b) the utilization of said accumulated data to estimate the sag of a slice of a subject in a particular situation.

Each of the cited references utilizes data acquired under a same set of conditions for determining the sag. While the Wollenweber reference does mechanically measure the sag near both the CT and NM imaging positions, there is no teaching of accumulating data from a plurality of measurements of sag *in a plurality of various situations*, and then determining the sag at some position based on the accumulated data. In Wollenweber the measurements are made under the same situation and are used to determine positions for that situation. If a sag determination at a different situation is required, then only measurements for that different situation are utilized. Wichmann does not help to overcome this deficiency since all it teaches is a method of finding sag at a particular position based on a stationary system. Even if one were to consider that the slices are imaged for different positions of the patient table, there is "no accumulation of various measurements of sag," since Wichmann utilizes all of the images, together to determine the sag at all the points in the very same situation.

The portion of Wollenweber referred to by the Examiner, which appears to paragraph [0022] of the text does not define any measurements made in a plurality of situations.

Claim 28 requires that the following acts:

(a) measuring the sag of the support element at a plurality of positions and under a plurality of controlled loads;

(b) storing these sag measurements;

(c) estimating the sag at an imaging position and under the load of a subject using said stored sag measurements; and

In neither Wichmann nor Wollenweber are there any different loads used for different measurements. The portion of Wollenweber referred to by the Examiner, which appears to paragraph [0022] of the text does not define any measurements made under different loads.

Claim 29 and the claims dependent on it and new claim 36 define the invention in a manner that more closely follows the exemplary embodiment, in that the sag is determined at one position and then estimated at a second position.

·In view of the above amendments and arguments, applicant submits that the application is ready for allowance. Notice to that effect is respectfully solicited.

Respectfully submitted,
Alexander VAISBURD et al.

Paul FENSTER
Reg. No. 33,877

June 8, 2005

William H. Dippert, Esq.
Wolf, Block, Schorr & Solis-Cohen LLP
250 Park Avenue
New York, NY 10177

Tel: (212) 986-1116